

Interpreting climate accountability: sustainability managers' views of business–society–nature relationships over time

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Abstract

Purpose – In contexts where climate policy is fragmented, corporate actors play a central role in shaping responses to climate change. This study examines how sustainability managers in large Australian companies articulate the relationships between business, society and the natural environment over time, and how these articulations inform understandings of climate accountability.

Design/methodology/approach – Drawing on an interpretive framework inspired by Marcus *et al.* (2010) and a reflexive approach to interview data, the study analyzes accounts provided by sustainability managers from ASX200 companies at two points in time (2016 and 2020). The analysis traces shifts in how business–society–nature relationships are framed, without assuming linear change or causal attribution.

Findings – The findings indicate a discernible change in emphasis over time. While managers' accounts in 2016 tended to frame climate change primarily through compliance-oriented and economically bounded considerations, accounts in 2020 more frequently emphasized interdependence between business, society and the natural environment, alongside heightened attention to climate-related responsibility and risk. These shifts are interpreted as changes in framing rather than as uniform or complete transformations in practice.

Research limitations/implications – The study develops an interpretive mapping approach from Marcus *et al.* (2010) that enables systematic longitudinal analysis of how organizational actors articulate climate accountability. While based on a qualitative sample, the approach offers a structured way to examine evolving views on climate accountability across time and contexts.

Originality/value – The paper contributes to accounting and accountability research by offering a reflexive, longitudinal examination of sustainability managers' views of business–society–nature relationships, advancing understanding of how climate accountability is interpreted and articulated within large organizations.

Keywords Climate change, Manager views, Natural world, Society, Business, Impact

Paper type Research article



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1. Introduction

Climate change inaction represents one of the most pressing socio-political challenges confronting contemporary societies, alongside other sustainability concerns such as biodiversity loss, biosphere integrity, nitrogen overflows and the proliferation of novel entities (Rockström *et al.*, 2009; Steffen *et al.*, 2015). Climate change is widely recognized as a systemic phenomenon, intertwined with social, economic and political structures, and associated with a broad range of environmental and societal harms (World Economic Forum, 2022). Despite repeated calls for fundamental transformations in economic activity (IPCC, 2021, 2022), organizational responses remain partial and uneven.

Corporate actors play a central role in this impasse. More than 70% of global greenhouse gas emissions originate from corporate activities (Griffin, 2017), positioning firms as key sites of climate accountability. However, prior research shows that climate change is commonly understood by managers and the public as embedded within broader social and environmental concerns rather than as a discrete issue, resulting in heterogeneous interpretations of responsibility, urgency and appropriate organizational responses (Darier and Schule, 1999; Clayton and Manning, 2018). A variety of key frameworks and initiatives (GHG protocol, UN PRI, Science-based Targets, among others) may drive corporate environmental transparency, setting climate goals and integrating ESG (Environmental, Social, Governance) into corporate finance. We note that from an accounting perspective, this suggests that climate accountability is not simply a technical matter of measurement or disclosure, but is shaped by how organizational actors perceive, interpret and construct sustainability issues.

Accounting and sustainability research has long examined how managerial views influence environmental accounting and reporting practices. Early work by Larrinaga-González *et al.* (2001) demonstrates that organizations may adopt environmental accounting structures without fundamentally altering underlying interpretations of the environment, thereby limiting substantive change. Subsequent studies show that managerial engagement with sustainability accounting is often contingent on regulatory pressures, resource availability and dominant organizational priorities rather than on managers' personal environmental commitments (Mistry *et al.*, 2014; Qian *et al.*, 2015; Kwakye *et al.*, 2018). Mistry *et al.* (2014) show a limited impact of management accountants involved in sustainability agendas in small and medium companies in New Zealand. Analogously, Quian *et al.*'s (2015) study indicates that the readiness of environmental managers mainly depends on their perception of great regulatory changes. Similarly, Kwakye *et al.*'s (2018) study supports that the corporate engagement in sustainability accounting and reporting does not depend on the views of the management accountants but rather on the resources availability and pressures from major corporate stakeholders.

More recent research has extended these insights by highlighting the importance of stakeholder perceptions and expectations in shaping corporate sustainability disclosures and accountability practices (Xiao and Shailer, 2022). From this perspective, sustainability reporting functions not only as a mechanism for communicating information but also as a means through which organizations manage legitimacy and negotiate relationships with diverse stakeholder groups. However, while this literature has advanced understanding of how stakeholders influence disclosure outcomes, less attention has been paid to how sustainability managers themselves interpret and reconcile these stakeholder pressures with organizational priorities over time.

In parallel, organizations have increasingly formalized sustainability roles, elevating the position of corporate sustainability managers. Another stream of literature has widely recognized these actors as influential in shaping sustainability accounting systems, managing climate-related information and mediating organizational relationships with external stakeholders (Aras and Crowther, 2009; Özsözgün Çalışkan, 2014; Schaltegger and Burritt, 2017). Sustainability managers are frequently depicted as internal "change agents" (Henri and Journeault, 2010; Borglund *et al.*, 2023; Schaltegger *et al.*, 2024), and their views have been

shown to influence organizational responsiveness to sustainability and climate-related risks (Papagiannakis and Lioukas, 2012; Fleck-Baustian *et al.*, 2025).

At the same time, critical accounting and organizational studies caution against assuming that sustainability managers possess a clear or unified interpretive framework. Research on identity work and professional roles reveals that sustainability managers often navigate competing organizational, economic and ethical demands, producing tensions and ambiguities in how sustainability is framed and enacted (Wright *et al.*, 2012; Visser and Crane, 2010; Carollo and Guerci, 2018): “because the multiple goals that it [the role of sustainability manager] entails and the multiple means available to achieve it cause tensions in the organization at different levels” (Carollo and Guerci, 2018, p. 249). Borglund *et al.* (2023) argue that sustainability managers’ interpretive capacity is constrained by dominant organizational logics, suggesting that their perceptions may simultaneously enable and limit substantive climate accountability: “it is obvious that one also has to identify underlying claims, demands, expectations, clashes and struggles that relate to the role” (Borglund *et al.*, 2023, p. 60).

These tensions are particularly salient in the Australian context. Despite its economic wealth, Australia has historically lacked strong, coherent federal climate policies and continues to support fossil fuel industries through financial and political mechanisms (SEI, IISD, ODI, Climate Analytics, CICERO and UNEP, 2019; Hare, 2024). Australia remains among the highest per capita emitters globally, while also being highly vulnerable to climate-related impacts such as bushfires, flooding and drought (Australian Academy of Science, 2021). In the absence of a robust economy-wide carbon pricing mechanism [1], corporate climate accountability has largely been enacted through voluntary or quasi-mandatory reporting regimes, most recently through the introduction of IFRS S1 and S2 (Morrison and Lowe, 2021; IFRS, 2022).

In this context, sustainability managers occupy a particularly influential position as boundary-spanning actors responsible for translating regulatory expectations, stakeholder demands and organizational priorities into accounting and reporting practices (Johnstone, 2019). Yet, consistent with prior accounting research, it cannot be assumed that such roles necessarily produce deeper organizational engagement with climate change: they do not express “simple interpretative and action-guiding capacity” (Borglund *et al.*, 2023, p. 72). Rather, the ways in which sustainability managers perceive the interconnections between business, society, and nature are likely to shape how climate accountability is interpreted and enacted.

To examine these interpretive processes, this study adopts Alvesson’s (2003) concept of reflexivity (“reflexive pragmatism”: Alvesson, 2003, p. 14), which emphasizes the socially constructed nature of organizational cognition, meaning-making and accountability practices. Reflexivity provides a lens for analyzing how sustainability managers understand their organizational roles, how they negotiate competing logics of business performance and environmental responsibility (see also De Loo and Lowe, 2012), and how these understandings may evolve over time. Alvesson (2003) clarifies that the accounts produced by interviewees (sustainability managers in our case) help to explore issues broader than a representation of the interiors of subjects or the exteriors of the social world in which the interviewee participates.

Since climate change represents a significant challenge that transcends national borders and encompasses various socio-economic and political dimensions (Islam and Kieu, 2021), in this context, the sociological perspective may offer insight into examining how corporations respond to sustainability issues, in time, through their human dimensions of climate change (the sustainability manager), and how they disclaim to juggle social, institutional and cultural dynamics (Dunlap and Brulle, 2015). Sustainability managers may offer a cautious tale of how the organization interprets its positioning within the social and natural environment to inform their own role. As such, we contend that there is value in trying to gather possible longitudinal changes of views in the Australian context.

The concept of disaggregation of the business from its social and natural environment is interpreted as a philosophical exercise in this study, which attempts to recognize macrosystems composed of smaller microsystems (Marcus *et al.*, 2010). Moreover, it focuses on the reciprocal boundaries assigned to those microsystems, for instance, social and natural issues with respect to business considerations. Among those exercises (see, for instance, Whiteman *et al.*, 2013), Marcus *et al.*'s work (2010) explores the nature–society–business relationship, and the potential evolution of such relationships. Reference to an explicit linking of organizations' management views with Marcus *et al.*'s (2010) boundaries may be a fruitful approach to innovating accounting and accountability pressures towards issues of sustainability, especially with reference to climate change.

Accordingly, this study investigates the views of sustainability managers in Australian companies at two points in time, separated by a five-year interval, to explore whether and how their views of business–society–nature interconnections have evolved. By adopting a longitudinal qualitative approach, the study responds directly to calls within accounting and sustainability research for greater attention to managerial views, reflexivity, and temporality in sustainability accounting and accountability (Larrinaga-González *et al.*, 2001; Mistry *et al.*, 2014; Qian *et al.*, 2015; Kwakye *et al.*, 2018; Borglund *et al.*, 2023).

The study addresses the following research questions:

RQ1. How do sustainability managers in Australian companies perceive the interconnections between business, society and nature in relation to climate accountability?

RQ2. How, if at all, have these views evolved over time?

By doing so, this paper contributes to *Accounting, Auditing and Accountability Journal* by extending existing research on sustainability accounting beyond static analyses of practices and disclosures, offering a reflexive and longitudinal examination of how managerial views shape, and potentially constrain, corporate climate accountability.

The following section of this paper explores how the concepts of nature and society can be traced through the interdisciplinary literatures of accounting, organizational studies and environmental philosophy. We follow this review of literature with an illustration of our theoretical approach, after which we outline the ways in which we set about asking and answering our research problem. Our findings and discussion will lead to a conclusion in which we suggest some future research, as well as the limitations of the current project.

2. Approaches to nature and society

The interconnected relationship between nature, society, and business is exemplified by climate change, which highlights how economic activity, social systems and ecological processes are mutually implicated. While climate change is grounded in physical science, it is also experienced, interpreted and communicated through social, political and organizational lenses.

Research shows that awareness and self-reported knowledge of climate change have increased over time (Clayton and Manning, 2018). Qualitative studies further demonstrate that understandings of climate change are shaped by recurring themes, including human causation, consumption patterns and social organization (Smith and Joffe, 2013; Tvinnereim and Fløttum, 2015). These findings suggest that climate change is not only a scientific phenomenon but also a socially constructed one, mediated by dominant discourses and contextual experiences.

From a sociological perspective, Goldman *et al.* (2018) illustrate how different epistemological and ontological positions shape how climate change is known and acted upon. They contrast localized, experiential understandings with governmental and corporate approaches that render climate change calculable, standardized and manageable at a distance.

Such calculative framings tend to privilege certain forms of knowledge while marginalizing others, reinforcing particular power relations and institutional priorities. [Alvesson \(2003\)](#) conceptualizes this as *localism*, whereby actors produce situated accounts drawing on culturally and institutionally available vocabularies.

A dominant contemporary discourse of climate change is the corporatized, calculative mode of communication, which aligns closely with accounting traditions ([Morrison et al., 2022](#)). While such framings enable measurement, comparison and reporting, they risk portraying the relationship between business, society and nature as controllable and technically manageable. [Alvesson \(2003\)](#) characterizes this tendency as neo-positivist, insofar as it privileges quantitative representations and marginalizes ambiguity, conflict and value pluralism. This is particularly problematic for sustainability managers, whose roles require them to navigate competing economic, environmental and social objectives that operate across different time horizons and logics ([Hahn et al., 2014](#)).

In this context, interview accounts provided by sustainability managers should not be treated as direct representations of internal beliefs or organizational realities. [De Loo and Lowe \(2012\)](#) argue that such accounts reveal less about psychological interiors or objective practices, and more about how actors cope with complex social, institutional and representational demands. These accounts reflect role expectations, identity work, institutional pressures and dominant macro-discourses ([Alvesson, 2003](#)), rather than stable or unified viewpoints.

Managers' views are therefore understood as temporally and contextually situated. They draw on both individual experience and organizational contexts ([Dijksterhuis, 2003](#); [Ungar, 2000](#)), as well as broader societal discourses around sustainability and climate change ([Koger and Winter, 2011](#)). As [Hawken et al. \(1999\)](#) note, when managers speak about environmental issues, they often articulate not only personal positions but also the values, constraints and priorities of their organizations.

Accordingly, this study adopts a reflexive interpretive stance in analyzing sustainability managers' views on the interconnections between business, nature and society. Reflexivity is understood as a deliberate effort to examine these accounts from multiple angles, avoiding the privileging of a single vocabulary or interpretive frame ([Alvesson, 2003](#)). By comparing managers' accounts across two points in time and interpreting them through a structured conceptual framework, the study seeks to identify shifts in emphasis and framing while remaining attentive to ambiguity, context and discursive constraint.

This reflexive positioning underpins the theoretical framework adopted in the following section, which provides a structured basis for interpreting how sustainability managers articulate business–society–nature relationships over time.

3. Theoretical framework

To unpack the relationships between nature, society, and business, this study adopts a theoretical framework inspired by [Marcus et al. \(2010\)](#) and applies it to examine how these relationships are articulated by sustainability managers in Australian companies over time. The framework is used to document possible shifts in how business–society–nature interfaces are understood, rather than to prescribe normative models of sustainability. The analysis is further informed by accounting, management and environmental ethics literatures that examine the relational nature of human activity and organizational responsibility.

[Marcus et al. \(2010\)](#) outline three broad patterns of relationship between nature, society and business: a disparate view, in which economic interests are prioritized over social and environmental considerations; an intertwined (or integrated) view, in which interactions between economic, social and environmental factors are acknowledged and managed; and an embedded view, in which business is understood as one part of a broader, interconnected system involving society and nature. In the embedded view, business activity is dependent on

and constrained by social and ecological systems, which are afforded priority over economic objectives (see [Table 1](#)).

[Marcus et al. \(2010\)](#) also discuss concepts and techniques that have been presented in the literature as illustrative of these views. For example, they identify the Triple Bottom Line (TBL, [Elkington, 1997](#)) as representative of an intertwined approach. It is important to note, however, that their framework is derived from a synthesis of research literature at a particular point in time, rather than from empirical observation of organizational practice. Accordingly, while alternative interpretations of tools such as TBL exist, this study adopts [Marcus et al.'s \(2010\)](#) framework as an interpretive reference point, recognizing that there can only ever be an approximate correspondence between theoretical models and how organizations understand or enact sustainability in practice. The aim here is not to adjudicate the merits of specific tools, but to examine how sustainability managers frame the relationships between business, society and nature.

The framework is further supported by a wider body of literature that explores ethical and relational assumptions underpinning sustainability and accountability. In accounting research, [Andrew \(2000\)](#) illustrates how environmental ethics are reflected in different accounting approaches, distinguishing between mainstream accounting, postmodern environmentalism and radical ecology. Similarly, [Brown and Fraser \(2006\)](#) classify corporate social responsibility (CSR) and social and environmental accounting (SAE) approaches into business case, stakeholder-accountability and critical theory perspectives. Business case proponents view CSR and SEA initiatives through a shareholder primacy lens; the stakeholder-accountability approach to CSR/SEA promotes a more open, transparent and democratic society, while critical theory approaches consider CSR/SEA as a mechanism to expose the contradictions and exploitative aspects of the capitalist system. More recent contributions by [Morrison et al. \(2018\)](#), [Morrison \(2020\)](#) and [Bujaki et al. \(2023\)](#) identify ethical orientations toward nature – such as deontological, utilitarian and virtue ethics – that shape how organizations engage with environmental issues. Collectively, these frameworks reflect and elaborate the conceptual distinctions underpinning [Marcus et al.'s \(2010\)](#) typology.

Although [Marcus et al.'s \(2010\)](#) framework has been cited selectively in subsequent business and sustainability research (e.g., [Hahn et al., 2016](#); [Hansen and Schaltegger, 2018](#); [Tregidga et al., 2018](#)), many of its core ideas have informed later debates about corporate sustainability and planetary boundaries. In this study, the framework – supplemented by insights from [Morrison \(2020\)](#) and [Morrison et al. \(2018\)](#) – is used to identify sustainability managers' views and to explore whether, and how, these views change over time. It is

Table 1. Framework by [Marcus et al. \(2010, p. 407\)](#)

	Disparate Atomistic	Intertwined Systemic	Embedded Holarchical
(1) Business	Separable; largely self-contained and self-regulating	Partially separable; relatively equal in stature to business and nature	Inseparable; a partial system contributing to societal welfare, within the biosphere
(2) Society	Separate and exogenous; aggregate of individual interests	Interface with business in the stakeholder complex	Includes all human systems and activity across levels of analysis
(3) Nature	Separate and exogenous	Interfaces with business such that business value and natural capital are mutually enhanced	Finite, all-encompassing life-sustaining system
(4) Relevant value domains	Economic	Unordered multi-form: economic, social and environmental	Ordered multi-form: nature, society, business
(5) Relational principle	Independence	Interdependence	Dependence

important to emphasize that [Marcus et al. \(2010\)](#) articulate ideal-typical representations derived from academic discourse, not descriptions of actual organizational practice.

3.1 Disparate approach: business, society and nature as separate domains

The disparate approach describes an ontology in which business, society and nature are understood as largely separate systems ([Marcus et al., 2010](#)). Within this framing, economic objectives dominate and social and environmental considerations are addressed only insofar as they support financial performance. Accounting and sustainability literature has associated this view with a sense of separateness between human activity and the natural world ([Morrison, 2020](#); [Bujaki et al., 2023](#)), echoing Milton Friedman's (1970) assertion that the primary responsibility of business is profit maximization.

Environmental ethics scholars have similarly critiqued dualistic assumptions that separate humans from nature ([Plumwood, 1993](#); [Davion, 2002](#)). In accounting research, the disparate view is reflected in practices that externalize social and environmental impacts that cannot be economically quantified ([Jensen, 2002](#)), resulting in instrumental approaches to CSR ([Gray et al., 1996](#); [Larrinaga-González et al., 2001](#)). Studies that have investigated this tension have found that by applying CSR, the economic dimension has been prioritized over environmental and social sustainability ([Hahn et al., 2014](#); [Van der Byl and Slawinski, 2015](#)). The critique of [Gray et al. \(1996\)](#), recalled by [Larrinaga-González et al. \(2001\)](#), among others, clarifies the conservative bias of businesses (and governments) in the appropriation of the environmental agenda to avoid departures from the conventional business management.

These studies show that under this logic, sustainability initiatives are often adopted to secure competitive advantage or legitimacy, rather than to deliver mutual benefits for business, society and nature ([Mahoney and Roberts, 2007](#); [Nakao et al., 2007](#); [Hahn et al., 2014](#)). Similarly, approaches that emphasize efficiency gains – such as productivity improvements or energy-saving technologies – may reduce environmental impacts only insofar as they enhance shareholder value ([Burnett and Hansen, 2008](#); [Pagan and Prasad, 2007](#)), reinforcing critiques of “window dressing” sustainability ([Gao and Bansal, 2013](#)). From this perspective, sustainability is reduced to incremental harm reduction rather than a reconsideration of business–society–nature relationships ([Morrison, 2020](#)).

3.2 Integrated (intertwined) approach

The intertwined or integrated approach acknowledges interactions between business, society and nature and seeks to manage these relationships to reduce negative impacts while maintaining economic viability ([Marcus et al., 2010](#)). This approach is often associated with attempts to broaden corporate sustainability beyond a narrow financial focus, while retaining an anthropocentric orientation that values nature primarily for its instrumental contribution to human well-being ([O'Neill, 2001](#)).

A range of accounting and management approaches have been presented in the literature as illustrative of this view, including the Sustainable Balanced Scorecard, TBL reporting ([Elkington, 1997](#)), eco-efficiency accounting and integrated reporting (IR). These approaches share an emphasis on making social and environmental impacts visible and measurable within organizational decision-making ([Figge et al., 2002](#); [Busco and Quattrone, 2015](#); [Elkington, 1997](#)). While they have contributed to raising awareness of sustainability issues, research consistently suggests that they have had limited success in disrupting dominant economic priorities or delivering substantive social and environmental improvements ([Rambaud and Richard, 2015](#); [Unerman et al., 2018](#); [Srivastava et al., 2022](#)).

Eco-efficiency, for example, seeks to reduce environmental impacts per unit of economic output ([Schmidheiny, 1992](#); [DeSimone and Popoff, 2000](#); [Burritt and Schaltegger, 2001](#)), but remains focused on relative efficiency rather than absolute ecological limits. Similarly, TBL and IR may be mobilized in ways that reinforce business-as-usual practices, depending on underlying organizational assumptions ([Brown and Dillard, 2014](#)) [2].

We are aware of the possibility that tools, measurements and techniques identifiable under other business/society/nature approaches (such as integrated reporting, IR; eco-efficiency accounting; TBL) may be directed to only pursue social or environmental projects that improve the economic performance (i.e. eco-efficiency as an argument to kill environmental projects), depending on the underlying organizational mindset.

In line with [Marcus et al. \(2010\)](#), these approaches are treated here as illustrative of an intertwined orientation, while recognizing that their implications depend on how they are enacted in practice.

3.3 Embedded (interconnected) approach: business within society and society within nature

The embedded or interconnected approach conceptualizes business as nested within society, which is itself embedded within the natural environment ([Marcus et al., 2010](#)). From this perspective, economic activity is fundamentally dependent on social and ecological systems, and sustainability requires prioritizing the integrity of those systems over business performance. [Morrison \(2020\)](#) associates this view with environmental philosophies such as deep ecology, ecofeminism and virtue ethics, which emphasize relationality, interdependence and ecological limits ([Naess, 1973](#); [Plumwood, 1993](#)).

Accounting research engaging with such perspectives remains relatively limited but includes studies that foreground ecological values and non-human interests ([Birkin, 1996](#); [Cuckston, 2017](#); [Dey and Russell, 2014](#)). Broader debates around alternative economic models – such as doughnut economics ([Raworth, 2017](#)), circular economy approaches ([Fiedler et al., 2021](#)) and degrowth ([Kallis et al., 2018](#)) – also reflect elements of an embedded view by challenging assumptions of unlimited growth and emphasizing systemic interdependence. We note that the degrowth concept may appear disparate because traditional business *requires* growth (profit and expansion), while degrowth advocates for *reducing* production/consumption to respect ecological limits, thereby creating tension with capitalism's core. However, a growing niche (see [Quilley, 2012](#)) argues for *transformed* businesses (selling “better,” not “more”) to fit within a degrowth framework, making it less disparate and more about fundamental business model change. What these developments have in common is the centering of nature, rather than profit, and the implicit recognition that economic systems and business models are inherently connected with, and dependent on, nature and society.

[Marcus et al. \(2010\)](#) argue that an embedded approach offers the most coherent response to complex sustainability challenges, including climate change. However, research also highlights the significant tensions involved in enacting such a view within existing organizational and institutional structures ([Giddings et al., 2002](#); [Van der Byl and Slawinski, 2015](#)). As a result, calls have been made for empirical research that examines how these tensions are navigated in practice ([Marcus et al., 2010](#); [Van der Byl and Slawinski, 2015](#)).

In this study, [Marcus et al.'s \(2010\)](#) framework provides the structured conceptual foundation for analyzing how sustainability managers articulate the business–society–nature interface and how these articulations may evolve over time. [Table 2](#) summarizes the interpretive template adopted in the analysis.

4. Method

Drawing on the conceptual framing outlined above, and particularly on [Marcus et al.'s \(2010\)](#) model, this study examines how sustainability managers speak about the relationships between business, society and nature at two points in time: 2016 and 2020. The study adopts a qualitative, interpretive approach and focuses on identifying shifts in managers' views rather than establishing causal explanations for change. A five-year interval was selected as an appropriate strategic window for examining potential changes in managerial views and accounting-related orientations ([Simons, 1987](#); [Verbeeten, 2010](#)).

Table 2. Company types in the sample, by industry group and emission pattern

2016			2020		
GICS	High scope 1 emitters	High scope 2 emitters	GICS	High scope 1 emitters	High scope 2 emitters
Industrial	5		Industrial	3	
Energy	1				
Materials	4				
Utilities	1				
Financial		3	Financial		3
Real estate		1	Real estate		3
Materials		1	Healthcare		1
Consumer discretionary		6	Communication		1
Sub total	11	11	Sub total	3	8
Total companies	22		Total companies	11	

The Australian context provides a particularly relevant setting for this analysis, given the prolonged absence of strong federal climate policy guidance. The year 2016 represents a period in which awareness of environmental and social pressures was present, but largely decoupled from binding national climate commitments, following the repeal of carbon pricing in 2014 and prior to Australia's formal ratification of the Paris Agreement. Importantly, 2016 also predates major exogenous and endogenous shocks – such as the banking Royal Commission (2017–2019) and the 2019 bushfires – that may otherwise have influenced corporate narratives. The 2016 interviews therefore offer a baseline articulation of how sustainability managers framed the business–society–nature interface at that time.

Between 2016 and 2020, Australian organizations were exposed to a range of developments likely to shape how climate change was discussed, including increasing public debate about carbon pricing, visible climate impacts and shifting expectations regarding corporate responsibility. The follow-up interviews conducted in 2020 were designed to probe whether, and how, managers' views had evolved in light of these changes. While the study does not seek to attribute change to specific events, the longitudinal design enables a systematic comparison of how managers spoke about climate change and organizational responsibility across time.

4.1 Data sources and interviewees' selection

The study draws on semi-structured interviews with senior sustainability and climate change managers from companies listed in the ASX200. Interviewees held senior roles with direct responsibility for sustainability strategy, climate change management or related reporting, and typically reported to executive-level management. While job titles varied across organizations, all participants occupied positions with organizational authority and boundary-spanning responsibilities.

Companies were purposively selected to capture variation across industries with different emissions profiles. The sample includes firms with high Scope 1 emissions (e.g., Utilities, Materials, Energy and Industrials) as well as firms with high Scope 2 emissions (e.g., Consumer Staples, Consumer Discretionary, Healthcare and Communications [3]), as summarized in Table 2. This diversity supports a broader understanding of how managers across different organizational and environmental contexts articulate business–society–nature relationships.

A total of 22 managers were interviewed in 2016, with some interviewed more than once. In 2020, 11 managers participated in follow-up interviews. Given staff turnover and changes in availability, the study focuses on the sustainability management role rather than tracking the

same individuals or firms over time. This approach is consistent with prior longitudinal qualitative research and allows for comparison at the level of organizational roles and dominant narratives rather than individual trajectories.

4.2 Interviews and reflexive orientation

Interviews in both periods were semi-structured, allowing managers to elaborate on climate change issues in their own terms. In line with a reflexive approach (Alvesson, 2003), interview questions were not framed explicitly around abstract concepts such as “business–society–nature relationships.” Instead, participants were asked to discuss their organizations’ climate-related practices, strategic priorities, reporting requirements and responses to external pressures. This indirect questioning was intended to elicit how managers framed these relationships in practice, while reducing impression management and rehearsed responses (De Loo and Lowe, 2012).

The 2016 interviews explored topics such as environmental reporting, drivers and barriers to emissions management and top management support for climate-related initiatives. In 2020, additional questions addressed evolving reporting expectations and the potential implications of shocks such as the Covid-19 pandemic for corporate climate action. While interviews focused on climate change, participants frequently linked environmental issues to broader social, economic and governance concerns, reinforcing the systemic nature of the phenomenon.

All interviews were recorded and transcribed. Interviews were conducted face-to-face in 2016 and via video conferencing in 2020 due to pandemic-related restrictions. Each author independently reviewed and coded the transcripts, after which interpretations were discussed and refined collectively. Throughout this process, reflexive awareness was maintained regarding the situated nature of interview accounts and the researchers’ own interpretive assumptions.

4.3 Interpretive matrix and analytical process

To operationalize Marcus *et al.*’s (2010) framework, the study developed an interpretive matrix mapping three domains – business, society and nature – and their interfaces across disparate, integrated/intertwined and embedded/interconnected views (Table 3). The matrix provides a structured analytical tool for identifying how managers articulate organizational boundaries and interdependencies.

Following an initial reading of the transcripts, interview extracts were independently mapped against the matrix by each author. This process enabled systematic comparison across interviews and time periods, while also allowing for ambiguity and overlap between categories. Reflexivity played a key role in interpreting extracts that contained multiple or conflicting framings, recognizing that managers may draw simultaneously on different discursive resources depending on context (Alvesson, 2003).

An example of extract classification is provided in Table 4. As illustrated, some accounts combine elements of different views – for instance, expressing support for emissions reduction goals while simultaneously prioritizing commercial viability. Such instances were not treated as inconsistencies to be resolved, but as analytically meaningful reflections of the tensions inherent in sustainability management roles.

By applying this interpretive mapping consistently across both datasets, the analysis traces patterns of persistence and change in how sustainability managers speak about the business–society–nature interface. The following section presents the findings of this analysis.

5. Findings: framing the business–society–nature interface over time

Drawing on the interpretive matrix adapted from Marcus *et al.* (2010), this section examines how sustainability managers articulated the relationships between business, society and nature

Table 3. Interpretative matrix

Domain and interface	B–N–S view Disparate	Integrated	Interconnected
<i>Business (B)</i>			
Purpose of B/ responsibility/ies toward society;	Maximization of financial wealth	Co-creation of value/ agent of global change	Dependence on S and N; ecological sustainability
View on financial wealth	Relevant and desirable	Relative	N/A
View on economic outcomes	Relevant	Relative	N/A
View on economic growth	Primary objective	Relative	N/A – substituted with “development”
Assumptions about the individual B behavior	Individuals are self- interested	Individuals are involved in the co-creation of value	Interest in individual wellbeing
<i>B–N</i>			
Perception (and relevance) of N with respect to B	Provision of resources that can be modelled as economic factors	Mutually enhancing	B depends on N; B’s degradation of N
Identification of N externalities	Any impact of B on N is “externality”	Reduction of impact/ burden of B on N via technological and operational innovations	N/A (B is embedded in N)
Lobbying activity of B to influence policies on N	N/A	Active	Active
<i>Nature (N)</i>			
View on access to/ limitations of N resources	Source of basic resources	N/A	Awareness of natural resource capacity as existential
View on management of N resources	Natural resources constraints are a within- system constraint	Transformation of natural capital	Reduction of human impact/degradation on natural resource capacity; intellectual capital can moderate dependence on N resources
Perception of limits (imposed by N) to S and B expansion	N/A	Limitations of B’s environmental footprint	Physical limits to B and S expansion
<i>N–S</i>			
Perception (and relevance) of N with respect to S	N/A	N is typically framed as an S issue	Physical limits to S expansion
<i>Society (S)</i>			
Perception of regulatory/legal framework	Imposed requirement of compliance/ external limitation	Mutual influence	To be focused on societal welfare
Perception of government support and public policy	Undesirable/ public policy primary objective should be economic growth	Mutual influence/ public policy: means by which B achieves strategic objectives	Focused on the healthy functioning of all institutions

(continued)

Table 3. Continued

Domain and interface	B–N–S view Disparate	Integrated	Interconnected
Perception of stakeholders (if any/whom are they?)	Only shareholders	Stakeholders (owners, employees, customers, governments ...)	Broad human population
Perception of societal welfare and individual well-being	N/A	N/A	Strictly connected: interest towards life satisfaction; happiness; social unrest; war
<i>B–S</i>			
Perception (and relevance) of S with respect to B	N/A	Transformation of social capital; source of B’s legitimization	S’s interests supersede B’s interests
Identification of S externalities	Anything from societal pressures not translatable into economic factors is an externality	B’s environmental footprint framed as an S issue	N/A (B is embedded in S)
View on CSR–CSP	N/A	CSR/CSP	N/A
<i>B–N–S</i>			
Level of interrelationships (if perceived) among B–N–S	N/A (isolated systems)	Interdependence of relatively equal B, N, S spheres (no value ordering)	B nested in S; S nested in N (hierarchical value ordering)
Level of sustainability (N–S) awareness by B	N/A	Transformation of natural and social capital; reduction of environmental footprint	Dependence of B on S and B and S on N
B’s perception of “value”	Value = economic growth	Value = co-creation	Holistic individual well-being
“correct interests balance” and “legitimation” by N–S	N/A	Equal balance of interests	Dependence
View on “development” (if any)	N/A	N/A	Dependence
Timeframe of reference (short-medium-long term future)	short	short	Economic growth substituted by dependence long

Source(s): Elaboration from [Marcus et al. \(2010\)](#)

at two points in time: 2016 and 2020. The findings are organized around the three ideal-typical views identified by [Marcus et al. \(2010\)](#) – disparate, intertwined (integrated) and embedded (interconnected) – and focus on changes in emphasis across the two periods.

5.1 How managers spoke about the business–society–nature interface in 2016

As outlined above, the 2016 data are drawn from semi-structured interviews in which issues around environmental reporting and corporate responses to climate change were discussed in depth. As such, the data provides illustrative examples of views toward climate change, corporate environmental impact, and more broadly, sustainability issues, at a specific point in time. Most of the interviewees in 2016 agreed that the purpose of their respective businesses and their responsibility toward society would lie in the creation of financial wealth:

Table 4. Example of classification of an interview extract against the interpretative matrix

Domain and interface Business (B)	Disparate	Integrated/ Intertwined	Interconnected/ Embedded
Purpose of B/ responsibility towards society	Maximization of financial wealth “there would be some [organizations] - many perhaps—that would be exploiting the environment for you know, for financial gain for their investors” [Interview 32]	Co-creation of value/agent of global change “there would be others [organizations] that would be doing something else to gain value, whilst trying to have a positive impact on the environment” [Interview 32]	Dependence on S and N; ecological sustainability
View on financial wealth	Relevant and desirable	Relative	N/A
View on economic outcomes	Relevant “well at what point do we become sustainable? And the only logical point was zero emissions, so that’s our objective, is zero emissions. What we’ve got to do is work out how to get there [zero emissions] in a commercially reasonable way. That’s the challenge set by the board” [Interview 32]	Relative	N/A
View on economic growth	Primary objective	Relative	N/A – substituted with “development”
Assumptions on the individual B behavior	Individuals are self-interested	Individuals are involved in the co-creation of value	Interest in individual wellbeing

The financial return for investment generally would trump the CO2 emissions target pretty easily [Interview 12].

Something that the top management is concerned about is the price of the energy rather than the emissions associated with it [Interview 1].

... there’ll be a few emissions that we’d need to sweep up around refrigerants and some materials, and then we would use offsets as our last resort, but energy efficiency onsite renewables and buying green power – do we have to wait for 2050? No, we can do all of those things today, the question is, would we be rewarded for doing it? And in the current environment, it seems unlikely that we’d be rewarded ... [Interview 24].

... we continue to make investments in projects where we see an opportunity [of return] ... If I were to call it a carbon emissions management ... they [the staff and other managers] wouldn’t get it. If I were to say “this is an energy—or reducing energy, increased recycling, reduced gas emissions” – they would get it because it’s more hands on [i.e. reduced to cost considerations]. If it’s [framed as] an incentive I think it works ... [Interview 13].

These excerpts typify the view towards the business’ interface with nature, which is valued only when it can be modeled as an economic factor. The excerpt from Interview 24 explains how the consideration of the natural resources (use of renewables and green power) is subjected to an “efficiency” function (relationship between input and output of the production process) and to an expected “reward” which seems to imply a monetary valuation (see also Interview 13). The Interview 1 excerpt clarifies that the impact of businesses on nature is mainly seen as an “externality,” therefore it is not accounted for in the strategy and management of the business.

All excerpts evidence an assumption of self-interested behavior of businesses and managers, which appear aligned with the above-mentioned expectation of economic benefits (reduction of costs/prices, improvement of the input/output ratio and monetary incentive/opportunity to invest).

Technology (e.g. “automation”) appears to play an important role in achieving the desired economic results, especially in terms of cost efficiency and resource usage efficiency, as shown in the two extracts below.

We are continually investing in new technology, which is—they will have a fuel efficiency outcome. We are working with our whole of value chain, and governments and our fuel suppliers, to identify opportunities to reduce our environmental impact [Interview 6].

We were quite conscious of is retaining our social license to operate. I guess that means that we need to be seen to be doing the right thing and taking initiative to control automation and positively acknowledge the impact . . . on the climate in order to retain and attract our customers. That’s especially pertinent in the context of our corporate customer base. We find that [for] many of our tenders, environment questions play a prominent role in those tenders. . . . industry has certainly been exposed to community pressure. [Interview 7]

Also evident in these interviews was a fairly strong theme of interface between business and society (defined as ‘social license to operate’ in Interview 7), which was mainly conceived through the regulatory environment (“governments,” “tenders”) and both the “suppliers” and “customers” base (or “value/supply chain” as they represent the “community pressure” in Interviews 6 and 7).

At the present time, it’s data [carbon emission] only for regulatory compliance, and when the carbon tax was in, it was certainly done to understand our exposure to carbon-related costs in our supply chain [Interview 13].

If there were no carbon price, that abatement unit would not have been installed. So that’s the one site that would have had high greenhouse gas emissions that weren’t linked to energy use – instead, the emissions were from a chemical process, and we installed that abatement unit to lower those emissions [Interview 1].

The abatement unit costs millions of dollars, and it costs about a million dollars a year for the catalysts to reduce those emissions [Interview 1].

The need for compliance and carbon-related costs’ reduction are conceived in the extracts from Interview 13 and 1 as undesirable effects of the regulatory framework (they say: “[it] cost millions of dollars a year”). Although the exposure to these effects was used by the business to reflect better on cost efficiency along the supply chain, the view on these requirements is to meet external regulation (or “to be seen” doing the right thing, Interview 7) rather than as changing company strategy, for which the “million dollars” investment and operating costs appear to be a source of concern.

Despite these strong reductionist views on societal and natural welfare as best represented by and through business welfare, some interviewees expressed a few moderate views (with weak positions, perhaps instrumental in nature) on the opportunity to rethink the interface with nature and society, by considering a larger set of business stakeholders and their pressures.

A lot of our customers are in a fast-moving consumer goods space, and they want to make sure that the environmental risks are managed in their supply chain [Interview 3].

I guess that we like to . . . minimizing impact on the communities around us, on the environment and also on the health and safety of our people, so that’s embedded in people’s brains, so we do a lot of training at superintendent and supervisory level around those sorts of things, to try and instill an understanding of peoples obligations to the environment, and then down at the work crew level we give them what we call tool box talks [Interview 25].

These excerpts represent those interviews where there was an acknowledgement of the interrelations between the business, the society (seen as “customers” in Interview 3, but also as

“communities around us” meaning local communities in Interview 25, and “our people,” meaning company’s workers/employees under regulated safety and security practices, again in Interview 25) and the nature, which typified the views being expressed at that time. For instance, Interview 3 recognizes the customers’ and consumers’ space as a relevant part of the way business should be conducted (this view is coherent with the former Interview 7’s concerns). The consideration of their expressed values, such as the management of the environmental risks, brings into the profit-making shareholders’ considerations about business’ legitimacy. Interview 25 adds some more nuances around the consideration of society simply as a regulatory framework of reference. This confirms [Baldvinsdottir and Johansson’s \(2006\)](#) view that the concept of managers’ responsibility includes both the maximization of shareholders’ value and the necessity for commitment and respect of other stakeholders.

The attention paid to the safety and security issues of business’ employees and other people and the mention of training capabilities concerning the relationship with the physical environment (“understanding people’s obligations to the environment”) are elements that signify the business (and individuals) involvement in the co-creation of value with nature and society. The excerpt of Interview 25 also clarifies how the business environmental footprint was modeled primarily as a social issue.

In the 2016 interviews, only one passage expressed a more interconnected/embedded approach, where business is seen as part of a broader (and more important) social and natural environment.

We need to make sure that not only are we looking after the staff, but the impact is large – about what these people would have, I mean if they’re travelling to work we have a sustainable strategy that encourages green transport for team members . . . – we’re interested, so it’s not just the benefit, it’s something that team members are contributing to the wider good of the community [Interview 26].

The excerpt from Interview 26 highlights the potential of a larger business’s contribution to human and natural wellbeing than the reported sustainability performances. The recognition of a broader environment within which businesses are positioned (and on which businesses rely) implies a widening of the interviewee’s perspective beyond specific groups of interest (“the wider good of the community”).

The general pattern from the 2016 interviews was that of an integrated view bordering with a disparate view: several concerns were reflective of a difficult transition from the traditional (disparate) view of the business as primarily responding to financial and economic outcomes (profit maximization, return on investments, energy efficiency and cost savings). Most sustainability managers lamented that while the business, society and nature connections were not fully visible, their ability to propose interventions was bounded by such financial outcomes and cost minimization. Nature and society were often seen as instrumental to the objectives of the company. The 2016 interviews did demonstrate a degree of integrated approach when referring to their “social license to operate” and recalling the “peoples obligations to the environment,” but the full degree to which business and society might be seen to rely on nature was not recognized by our interviewees.

5.2 How managers spoke about the business–society–nature interface in 2020

Four years later, in 2020, it can be argued that the world was a very different place. With much of Australia (and many other places in the world) in various degrees of lockdown and restrictions related to the Covid-19 pandemic, we should note that by 2020, carbon pricing had been introduced in many parts of the world. The 2015 Paris Agreement had been signed by most governments, and public perceptions on climate change were being significantly affected by climate events and societal-related shocks. We sought to discern if such radical changes may have brought about a change in management views in the largest corporations in Australia. Asking the interviewees how they predicted corporate and broader climate change

issues might be impacted, we found a pattern which was in fact quite different from that found only four years earlier. Below, we provide a small number of passages from the interviews that typify the overall patterns we discerned.

In 2020, a sedimented presence of financial concerns around the businesses' interface with society and nature is clarified by the extracts from Interviews 28, 29 and 30.

Because in the global market, at the moment, as soon as it's cheaper for you to import something, than to market here, you import it . . . So, it's a lack of cohesive policy from the federal government and it's the lack of global agreement [Interview 28].

We're a publicly listed company [subject to] investor preferences. So things like . . . reporting against those [greenhouse gas emissions] and needing to have targets and to report transparently how we're managing this is probably one of the larger motivators. That goes to our share price and investor relations, sustainability indices, ratings in those . . . [Interview 29].

. . . we've actually spent some money offsetting carbon emissions in our supply chain. So there's absolutely support for reducing emissions from a corporate responsibility point of view. There's also support for it in reducing cost. That would be the biggest driver [Interview 30].

The recognition of costs related to the business' imprint is proposed to be solved by either the importation of (polluted) energy, products or services from other countries in the global market (Interview 28) or the better cost efficiencies from emissions' reductions across the value chain (Interview 30). Moreover, the stock market (Interview 29) would appreciate or hinder such efforts through the investors' preferences. The reference to the global market (or to the stock market) as a potential solution to the social and environmental issues again recalls shadows of an emphasis on economic/financial outcomes. The consideration of society is flattened against the legal/regulatory framework.

In 2020, across all interviews conducted, there is a large emergence of a "transitional" view on society and environment, where the value of technological innovations seems to lie in the reduction of the business's imprint: carbon emissions (see Interview 28, below).

Transition gets you reductions [of carbon emissions]; focusing just on reductions doesn't necessarily get you transition. Well, if we lose those industries [coal, mining] from the country . . . that doesn't get you real reductions because if you just shifted to China or somewhere else, it's not going without improving the technology . . . there has to be a way of reducing that . . . is focused on transitioning business [Interview 28].

The role of the legal/governmental framework is still acknowledged, not only in terms of compliance to a specified regulation but especially in terms of funding support for emission reduction and reduction projects, as illustrated by the excerpt below, from Interview 29.

. . . now that governments are more under debt[due to the Covid pandemic] and they have more pressing needs, will they be able to keep funding for example in Australia . . . emission reduction projects, more renewable projects . . . ? [Interview 29].

Interview 29 implies a mutual influence of public policies and the ability of businesses to achieve their strategic objectives on carbon emissions.

The . . . management are realizing that if they don't have it [climate risk management] integrated into business strategy, they're not going to have a business in ten years-time. So they've really—the understanding of the urgency to have it be strategic is accelerated quite a bit . . . our customers are large corporations, so the fact that our customers are now asking us—have committed to net zero and they're asking us for products that will help them meet net zero [Interview 31].

It's important—because we know that as policy—climate change carbon policy develops, customers will flow it through to the people that they buy from. So, we want to be proactive on that so it's about keeping our stakeholders and meeting our customer expectations, preparing for what those expectations will be . . . [Interview 32].

The way managers spoke in 2020 largely acknowledge an interdependence between nature, society and business. In the extracts from Interviews 31 and 32, societal pressures are mainly conceived in terms of market of reference (“customers”) and other “stakeholders,” who seem to count more due to stronger commercial interconnections among corporations across the world (global value chains). Analogously, constant mention of a “policy” (institutionalized pressures) is made to highlight the important role of a national or international coordinated government’s effort.

This view was intensified, seemingly fueled, by the growing emergency of climate change, but also by the linkages made evident by the Covid-19 pandemic, as demonstrated in the passage below, where Covid-19 is considered to have highlighted the pressing crisis of climate change within a more socially oriented set of concerns.

Hopefully that [reduction of carbon emissions due to Covid-19 lockdowns around the world] will give some opportunity [of transitioning] . . . for people to see the scale of change that’s required and build capability. We’re aware of that disruption and if that were to be – that’s kind of I think interesting that people started to see a little bit of the scale [in development], that they’re going to need to move to be proactive on climate change [Interview 31].

Interview 31 introduces the concept of “transitioning” as a new way of translating business models into a concept of equitable “development.” The expression of “building capability” reaffirms a change of focus towards generalized societal and individual wellbeing. In turn, this depends on taking a shock like Covid-19 as an opportunity to further reduce the degradation on natural resources capacity and use intellectual capital to experiment new ways of interaction with the limited resources capacity.

A value ordering among nature (climate change), society and individuals business and their interconnections are further highlighted in the following extract from Interview 30:

We’ve had some debates about this [impact] internally among the sustainability team. . . . there’s something in the concept of resilience that could actually help the climate change discussion a little bit more to demonstrate well, how has – what is our resilience like as, (1) an economy, (2) as a society, and (3) at an individual level? I think this has really brought that to light [Interview 30].

There is a strong recognition of the ability of government to influence green investments and sustainability discourses by making such investment opportunities more generally appealing and embedding clear holistic value propositions for businesses in the long run (see Interview 28).

If we’re serious, if this is the next industrial revolution. And I think it probably is, it’s very short-sighted of the government. I mean, . . . the government needs to be promoting those [green investment] opportunities. We really could sale our solar energy in the form of hydrogen or ammonia to other countries like Germany . . . Massive opportunity, it would be interesting in 50 years to see who steps up and supports that in government or who doesn’t [Interview 28].

With respect to 2016, the interviews in 2020 demonstrate a general sense of relevance and urgency toward embracing climate-change initiatives, and use explicitly the term “embed” with reference to climate-related policies or corporate measures:

They [governments and society] have expectations., this [climate and social responsibility] is non-negotiable, whether it’s community or shareholder or shareholder interest groups or investor analysts. There is a growing expectation [Interview 30].

It’s important that we are showing that we’re being proactive. One for our reputation, two to show our employees that we’re taking these matters seriously, three because there’s a duty of care for our directors and related to non-financial risks [Interview 32].

So, looking to obviously embed sustainability as much as we can and business as usual of the organization, of which climate change is obviously a very significant global risk and also a relevant risk for our business so that we can make sure we’re advising our senior leaders to be aware of the

The extracts from Interviews 30 and 32 outline the “non-negotiability” of climate change considerations and “pro-activity”, beyond the evaluation of the stock markets.

Society is depicted as the larger set of stakeholders (Interview 30), toward whom there is a “duty of care” (Interview 32). Non-financial risks (Interview 32) are said to be integrated with the financial ones and despite the reference to “growing expectation” (Interview 30), which may involve the regulatory environment, there is definitely a heightened level of accountability and responsibility that the management appears to relate directly to their corporations.

With respect to 2016 interviews, in which government policy appeared to take the weight away from individual companies, the extracts from 2020 (see Interview 28) bring back such climate concerns to the regulatory environment by questioning the government about what they might or should do in that respect. The corporations and their management appear to be increasingly aware of the level of global significance and wide awareness of climate change, plus the potential threat it represents for the business itself (also in terms of societal trust “fiduciary risk,” Interview 28).

From 2016 to 2020, these extracts confirm a move of the management views toward a more integrated/intertwined consideration of the business-nature-society interface (Marcus *et al.*, 2010). Although we are unable to provide a straightforward measurement of the diffusion and depth of such an integrated view, a few extracts confirm that such a move is not simply related to a temporary change of societal pressures but to a deeper and enduring awareness of the relevance of natural and societal environments for the survival of businesses, amidst potential other factors:

there was a whole bunch of other things all happening around the same sort of time. But definitely there is, let's say more awareness in the last few years than there was 10 years ago [Interview 29].

And that really shows that action on climate change is in the minds of our shareholders and customers. And so, we think it's an important driver for us to do so ...to take action [Interview 31].

6. Discussion

The comparative analysis of interview data collected in 2016 and 2020, interpreted through Marcus *et al.*'s (2010) framework, reveals a gradual but discernible shift in how senior sustainability managers speak about their organizations and their relationships with nature and society. Rather than aligning neatly with Marcus *et al.*'s ideal-typical categories of disparate, integrated/intertwined and embedded/interconnected views, managers' accounts reflect hybrid configurations that evolve over time, offering insight into how climate accountability is framed and enacted within organizations.

In the 2016 interviews, sustainability managers largely spoke about their organizations' engagement with social and environmental issues through an integrated lens that remained closely aligned with a disparate logic. Nature and society were acknowledged, but primarily insofar as they could be translated into economic terms, such as regulatory compliance, customer expectations, or supply chain pressures. Environmental impacts were frequently described as externalities, and business purpose was framed in terms of economic performance and growth. Regulatory interventions, including the then-operative carbon pricing scheme, were often spoken of as constraints on profitability rather than as drivers of fundamental organizational change.

At the same time, managers referred to a range of organizational initiatives aimed at emissions reduction and energy efficiency, frequently triggered by regulatory requirements. Several sustainability managers spoke enthusiastically about these projects, describing

substantial investments assessed using conventional investment appraisal techniques. Importantly, some initiatives continued beyond the repeal of the carbon pricing scheme, suggesting that regulatory pressures may initiate practices that subsequently become embedded in organizational routines, even if underlying business logics remain largely unchanged.

By 2020, managers' accounts reflected a stronger integrated/intertwined orientation, with reduced reliance on a purely disparate framing. When managers drew on a disparate logic, this was more often directed toward expressions of frustration with the absence of coherent federal climate policy rather than used to justify organizational inaction. Sustainability managers increasingly spoke about climate risk as a strategic issue and framed value creation as encompassing economic, social and environmental dimensions. Business was described as a site of technological and operational innovation, capable of contributing to emissions reduction while maintaining economic viability.

In several cases, managers spoke in ways that approached an embedded/interconnected view, explicitly recognizing that economic and societal development are constrained by the biophysical limits of the natural environment. Sustainability was increasingly described as a long-term challenge requiring organizational transition rather than incremental compliance. This shift was accompanied by greater emphasis on balancing, rather than trading off, the interests of business, society and nature, aligning with broader accountability debates that challenge narrowly financial conceptions of value.

The 2020 interviews also revealed an expanded attentiveness to stakeholder concerns. Whereas earlier accounts emphasized government policy, later narratives increasingly highlighted the influence of investors, shareholders, communities, customers and supply chain partners. Managers across sectors spoke about significant investments in emissions reduction and environmental initiatives, often driven by a combination of regulatory signals, stakeholder expectations and international affiliations. This suggests that sustainability managers increasingly frame climate accountability as shaped by a complex constellation of stakeholder influences rather than by regulatory mandates alone.

However, consistent with critical accounting perspectives, caution is required in interpreting these shifts in how managers speak as evidence of substantive organizational transformation. As [Alvesson \(2003\)](#) and [De Loo and Lowe \(2012\)](#) emphasize, managers' accounts may echo broader political, social, and media discourses rather than reflect deep-seated organizational change. Heightened public attention to climate change, experiences of extreme weather events, and the social and economic disruptions associated with Covid-19 may all have influenced how sustainability managers articulate their organizational roles and responsibilities. As such, changes in expressed views do not necessarily translate into consistent or enduring changes in accountability practices.

Overall, the findings point to a movement from an "integrated but predominantly disparate" understanding of the business–society–nature interface in 2016 toward a more "integrated and, in some instances, interconnected" view by 2020. In addressing the [first research question](#), the analysis shows that sustainability managers' views on climate accountability are shaped by economic, regulatory and stakeholder considerations that coexist uneasily within organizational settings. In relation to the [second research question](#), the longitudinal comparison indicates that how managers speak about business–society–nature relationships is not static but evolves in response to shifting institutional, social and environmental contexts.

[Marcus et al.'s \(2010\)](#) framework proved valuable in tracing this evolution, offering a structured lens through which to examine how sustainability managers articulate organizational boundaries and responsibilities over time. At the same time, the findings underscore a central tension within sustainability accounting and accountability: while managers increasingly speak in relational and interconnected terms, such shifts do not automatically translate into more substantive or transformative forms of climate accountability. Rather, they highlight the contingent and mediated role of sustainability

7. Conclusion

Climate change continues to pose a profound challenge to contemporary systems of economic organization, accountability and governance, particularly given the scale of corporate contributions to greenhouse gas emissions and the persistent absence of sufficiently strong public policy responses in some national contexts (Rockström *et al.*, 2009; Steffen *et al.*, 2015; IPCC, 2021, 2022). In Australia, this has placed increased responsibility on organizations – and on sustainability managers in particular – to interpret, manage and account for climate-related risks within existing corporate and reporting frameworks (Morrison and Lowe, 2021; IFRS, 2022).

This study examined how sustainability managers in large Australian listed companies speak about the relationships between business, society and nature at two points in time, using Marcus *et al.*'s (2010) framework and the concept of reflexivity (Alvesson, 2003; De Loo and Lowe, 2012) as interpretive lenses. The longitudinal analysis reveals a movement from views that were largely integrated but still grounded in a disparate view in 2016 toward views that more clearly emphasized interdependence and, in some cases, embeddedness by 2020. Earlier accounts (2016) tended to frame climate-related issues through compliance and economic rationales, consistent with prior accounting research showing that sustainability initiatives often leave underlying business logics intact (Larrinaga-González *et al.*, 2001; Qian *et al.*, 2015; Kwakye *et al.*, 2018). By contrast, later interviews (2020) more frequently framed climate change as a long-term strategic challenge shaped by biophysical limits and broader societal consequences.

At the same time, these shifts in how managers speak about business–society–nature relationships should not be interpreted as evidence of automatic or uniform improvements in climate accountability. As emphasized in critical accounting and organizational research, sustainability managers operate within organizational settings characterized by competing logics, power asymmetries and legitimacy pressures (Wright *et al.*, 2012; Carollo and Guerri, 2018; Borglund *et al.*, 2023). More relational or interconnected framings do not necessarily translate into substantive changes in accounting practices or decision-making processes, reinforcing longstanding concerns about the limits of disclosure-based accountability (O'Dwyer and Unerman, 2020).

Notwithstanding, if we consider that the interconnected view best represents an account which correlates with a realistic way of understanding the interrelations between business, society and nature, “it may be necessary to reconsider many of the fundamentally held precepts and dominant assumptions in management studies” (Marcus *et al.*, 2010, p. 424). This implication is likely to impact the roles of managers in climate change abatement, by way of instilling these considerations more deeply in the strategy of their company, and their costing or performance management systems. The TCFD is now embedded in the IFRS S2, pre-empts these changes, by bridging disclosures with financial risks and initiating the potential for management accounting to better contribute to the decision making around climate change risks and opportunities through the cost management systems of the organization.

Beyond its empirical and theoretical contributions, the study also offers a methodological advancement. By operationalizing Marcus *et al.*'s (2010) conceptual model through the development of an interpretive map of domains (business, society and nature) and their interfaces, the study provides a structured approach for systematically analyzing how sustainability managers articulate organizational boundaries and interdependencies, with the cautiousness of some pragmatic reflexivity (Alvesson, 2003; De Loo and Lowe, 2012). This interpretive mapping enabled consistent comparison across interviewees at different moments in time, supporting a more transparent and replicable qualitative analysis. As such, the approach may be particularly valuable for future accounting and accountability studies

seeking to examine organizational sensemaking, reflexivity and change in relation to sustainability and planetary boundaries.

From a theoretical perspective, the study contributes to accounting and accountability scholarship by demonstrating how [Marcus et al.'s \(2010\)](#) framework can be empirically mobilized to examine managerial views over time, responding to calls for greater attention to reflexivity and temporality in sustainability accounting research ([Alvesson, 2003](#); [Borglund et al., 2023](#)). In doing so, the study moves beyond static analyses of reporting practices to consider how accountability is constructed through managerial interpretation and organizational context.

Practically, the findings suggest that recent developments in climate-related reporting, including the introduction of IFRS S1 and S2, may reinforce emerging shifts in how sustainability managers frame climate risk by linking environmental issues more explicitly to organizational strategy and financial decision-making ([IFRS, 2022](#)). However, consistent with prior research, the results caution against assuming that enhanced reporting requirements alone will deliver substantive climate accountability without accompanying changes in organizational priorities, governance arrangements and management accounting systems ([Aras and Crowther, 2009](#); [Burritt and Schaltegger, 2010](#); [Schaltegger and Burritt, 2017](#)).

This study is subject to limitations common to qualitative research, including reliance on interview accounts and a non-identical sample of participants across the two periods. While these constraints limit claims about causality, the longitudinal and aggregate-level analysis offers insight into evolving managerial views within a national context marked by high emissions intensity and regulatory uncertainty.

Future research could extend this work by applying the interpretive mapping approach developed here to other national contexts, regulatory settings or sustainability challenges, and by examining how shifts in managerial views are translated into concrete organizational actions such as changes in accounting systems, investment decisions or performance management practices. Such work would further advance debates on the role of accounting in enabling – or constraining – meaningful organizational responses to climate change.

Notes

1. The Australian government repealed the carbon pricing scheme in 2014 and *de facto*, there is still no broad national economy-wide carbon tax or price. A “Safeguard Mechanism” was introduced in 2016, requiring major industrial facilities to keep their net emissions below a set baseline, with significant reforms strengthening it from July 2023 to align with national climate targets, while sparse climate reporting requirements ([Morrison and Lowe, 2021](#)) have been conflated into the IFRS S1 and S2 only recently (2023 and 2024).
2. At the center of the critical accounting literature, there are still companies that reason on how they can achieve competitive advantages in the market, by showing a “socially responsible and environmentally friendly” image, which translates into positive performance/market returns for the shareholders ([Mahoney and Roberts, 2007](#); [Nakao et al., 2007](#)) without a clear commitment towards mutual advantages. Similarly, when a positive inclination to frame nature and society is finalized to achieve primarily cost-benefit advantages for the business by increasing the productivity of natural resources and using innovative energy-efficient techniques ([Pagan and Prasad, 2007](#); [Burnett and Hansen, 2008](#)), we would argue that this kind of research has focused on how corporations can benefit themselves (we consider interchangeable the interests of the business and the shareholders) by addressing (or “window dressing”) environmental and societal concerns ([Gao and Bansal, 2013](#)).
3. Under the Australian National Greenhouse and Energy Reporting (NGER) legislation, Scope 1 emissions are direct emissions from owned or controlled sources; Scope 2 emissions are released to the atmosphere from the indirect consumption of an energy commodity. Both emissions must be reported under NGER, but they include different ways of conducting economic activity by businesses, and therefore a company that has high level of Scope 1 emissions will necessarily be engaging in the climate change space in a different way to a company which has a higher level of Scope 2 emissions, and therefore less direct control over emissions intensity ([Clean Energy Regulator, 2020](#)).

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